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<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/092,089	KISHINE ET AL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Linda Wong	2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 2/21/2006.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                     | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## **EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE**

### ***Response to Arguments***

1. Applicant's arguments, see Applicant's Remarks, filed 2/21/2006, with respect to Okamoto (US Patent No.: 5703511) have been fully considered and are persuasive. The 35 USC 102 of claims 1 and 18 and 35 USC 103 of claims 3 and 4 have been withdrawn.

### **REASONS FOR ALLOWANCE**

2. The following is an examiner's statement of reasons for allowance:

#### Related Conventional Invention:

One conventional method of clock data recovery comprises a multiplexor, demultiplexor, clock recovery in the form of a phase locked loop and a clock generator. Okamoto discloses a system that receives a 10-bit parallel data as an input into a multiplexor. The multiplexor outputs a 1Gb/s data signal which is then inputted into a demultiplexor and clock recovery circuit. (Fig. 19) "The clock recovery circuit receives the serial data at 1 Gb/s and generates the clock signal at 1 GHz." (Col. 11, lines 42-44 and Fig. 19) The output of the clock recovery is inputted into the demultiplexor, wherein the demultiplexor outputs a 100 Mb/s signal. (Fig. 19) A clock generator, also comprising a phase locked loop, synchronizes the 100MHz signal with a reference feedback clock signal. (Fig. 20) Although the reference is similar to the applicant's invention, the reference does not disclose all the limitations as recited the applicant's claim.

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Applicant's Invention:

The applicant discloses a clock data recovery that would produce a parallel and serial output function as well as producing a frequency signal which "oscillates at  $1/K$  frequency of the bit rate of the input data signal." (page 5, lines 8-17) The motivation for such an invention is to produce a receiver the functionality to switch point-to-point transmission. (page 1, lines 12-16) The applicant does this by producing a clock data recovery system comprising a VCO for producing a clock signal with a frequency a fraction of the bit rate of the data signal, a delay circuit for delaying the data so to adjust the timing, a demultiplexor for outputting a plurality of data signals based the output from the VCO so to provide parallel data. (page 17, lines 21-24) The outputted plurality of data signals is inputted into a multiplexor, which selects one signal based on the clock signal outputted from the VCO so to produce a serial data. (Fig. 5, label 4) The output from the multiplexor is inputted into a phase comparator which compares the output from the multiplexor with the output from the delay. (Fig. 5, label 5) The output from the phase comparator is inputted into the low pass filter, which controls the VCO. (Fig. 5) The prior art searched failed to teach such a system as disclosed by the applicant.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

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preferably accompany the issue fee. Such submissions should be clearly labeled

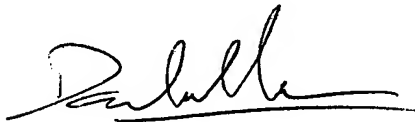
"Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linda Wong whose telephone number is 571-272-6044. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Linda Wong

A handwritten signature in black ink, appearing to read 'Linda Wong', with a horizontal line underneath.

**DACHA**  
**PRIMARY EXAMINER**